



SEQUENCE LISTING

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Kelner, Drew  
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Wang, Wei

<120> PITUITARY ADENYLATE CYCLASE ACTIVATING PEPTIDE (PACAP) RECEPTOR 3  
(VPAC2) AGONISTS AND THEIR PHARMACOLOGICAL METHODS OF USE

<130> MSB-7295

<140> US 10/618,126

<141> 2003-07-11

<150> US 60/395,738

<151> 2002-07-12

<160> 264

<170> PatentIn version 3.2

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Met Ala Ala Lys Lys Tyr Leu Gln Thr Ile Lys Asn Lys Arg Tyr  
20 25 30

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<400> 86

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1 5 10 15

Met Ala Ala His Lys Tyr Leu Gln Ser Ile Lys Asn Lys Arg Tyr  
20 25 30

<210> 87  
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<400> 87

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

Met Ala Ala Lys His Tyr Leu Gln Ser Ile Lys Asn Lys Arg Tyr  
20 25 30

<210> 88  
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<212> PRT  
<213> Homo sapiens

<400> 88

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

Met Ala Gly Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Arg  
20 25 30

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<212> PRT  
<213> Homo sapiens

<400> 89

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

Met Ala Lys Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Arg  
20 25 30

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<400> 90

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

Met Ala Arg Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Arg  
20 25 30

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<400> 91

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
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Met Ala Ser Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Arg  
20 25 30

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<400> 92

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
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Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Pro Asn Lys Arg  
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<400> 93

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Gln Asn Lys Arg  
20 25 30

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<400> 94

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1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Arg Asn Lys Arg  
20 25 30

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<400> 95

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1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Arg Arg  
20 25 30

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<400> 96

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Ala  
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<400> 97

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1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Phe  
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<213> Homo sapiens

<400> 98

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1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys His  
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<400> 99

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Ile  
20 25 30

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<213> Homo sapiens

<400> 100



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Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Lys  
20 25 30

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<400> 101

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
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Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Leu  
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<400> 102

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Met  
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<400> 103

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Pro  
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<400> 104

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
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Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Gln  
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<212> PRT  
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<400> 105

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Ser  
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<400> 106

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1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Thr  
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<400> 107

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
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Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Val  
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<210> 108  
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<212> PRT  
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<400> 108

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
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Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Trp  
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<400> 109

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1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Tyr  
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<400> 110

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

Met Ala Gly Lys Lys Tyr Leu Gln Ser Ile Lys Asn Arg Ile  
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<212> PRT  
<213> Homo sapiens

<400> 111

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

Met Ala Lys Lys Lys Tyr Leu Gln Ser Ile Lys Asn Arg Ile  
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<210> 112  
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<212> PRT  
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<400> 112

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
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20 25 30

<210> 113  
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<400> 113

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

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20 25 30

<210> 114

<211> 30

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<213> Homo sapiens

<400> 114

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

Met Ala Ser Lys Lys Tyr Leu Gln Ser Ile Arg Asn Arg Ile  
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<211> 32

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<223> Cysteine at position 32 is PEGylated.

<400> 115

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1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Gln Lys Arg Tyr Cys  
20 25 30

<210> 116

<211> 32

<212> PRT

<213> Homo sapiens

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<223> Histidine at position 1 is acetylated; and cysteine at position 32 is PEGylated.

<400> 116

His Thr Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Gln Lys Arg Tyr Cys  
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<210> 117  
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<400> 117

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
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Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Gln Lys Arg Tyr Cys  
20 25 30

<210> 118  
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<223> Cysteine at position 30 is PEGylated.

<400> 118

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Gln Lys Cys  
20 25 30

<210> 119  
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<400> 119

His Thr Glu Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Gln Lys Arg Tyr Cys  
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<210> 120  
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<400> 120

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

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<400> 121

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
1 5 10 15

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20 25 30

<210> 122  
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<400> 122

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln  
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Leu Ala Ala Lys Lys Tyr Leu Gln Thr Ile Lys Gln Lys Arg Tyr Cys  
Page 30

20

25

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<210> 123  
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<400> 123

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<400> 124

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<400> 125

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<400> 126

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<400> 127

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1 5 10 15

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<400> 128

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20 25 30



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20 25 30

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